ABSTRACT FOR THESIS

STUDY ON VISUAL EVOKED POTENTIAL CHANGES IN PATIENTS WITH TYPE 2 DIABETES MELLITUS WITHOUT RETINOPATHY

Diabetes is a chronic metabolic disorder which affects various organs of the body.Diabetic retinopathy is a leading complication of diabetes.Visual evoked potentials can be used as a safe, non invasive, objective method for preclinical evaluation and screening of high risk patients for development of retinopathy in diabetics.

AIM: To find whether PR-VEP latency is altered in type 2 diabetes and correlate it with duration of diabetes and glycemic control.

MATERIALS AND METHODS: This study included 40 Type 2 diabetic patients without retinopathy.40 age and sex matched subjects were taken as control.VEP recording was done by pattern reversal stimulation with RMS EMG EP MK2 machine.Complete ophthalmological testing were done in all patients.

RESULTS:P100 latencies were significantly prolonged in patients with diabetes with mean of 106.16msec as compared to control groups of mean 100.06msec with p value <0.000.Statistically significant correlation was found between p100 latencies with duration of diabetes and HbA1c levels.Patients with poor glycemic control and VEP changes showed early changes of diabetic retinopathy.

CONCLUSION:Neurofunctional changes occur in patients with type 2diaetes earlier than clinically detectable microvascular changes occur.so it is important to screen patients with diabetes both clinically and electrophysiologically.In future it can used as a screening tool for early detection of probable candidates who might develop retinopathy early and hence needing closer observation and strict metabolic control.

KEY WORDS: Diabetes mellitus,Diaetic retinopathy,VISUAL EVOKED POTENTIAL.